## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 21 April 2005 (21.04.2005)

PCT

(10) International Publication Number WO 2005/034717 A3

(51) International Patent Classification7:

A61B 8/00

(21) International Application Number:

PCT/IL2004/000940

(22) International Filing Date: 13 October 2004 (13.10.2004)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data: 158379

13 October 2003 (13.10.2003)

- (71) Applicant (for all designated States except US): VOLURINE ISRAEL LTD. [IL/IL]; TAMAR PARK, 2 BERGMAN STREET, 76705 REHOVOT (IL).
- (72) Inventor; and
- (75) Inventor/Applicant (for US only): KANTOROVICH, Edward [IL/IL]; 30 BEN-ZION AVENUE, 76465 RE-HOVOT (IL).
- (74) Agents: FENSTER, Paul et al.; FENSTER & COM-PANY, INTELLECTUAL PROPERTY 2002 LTD., P. O. BOX 10256, 49002 PETACH TIKVA (IL).

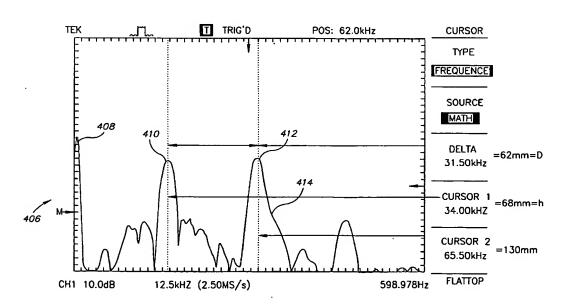
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

## **Published:**

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

## (54) Title: BLADDER MEASUREMENT



(57) Abstract: A measuring device, comprising, (a) an ultrasonic acoustic transceiver unit capable of sending and receiving acoustic signals into the body of a patient; (b) frequency modulating circuitry which drives said transceiver unit with a signal whose frequency varies with time; and (c) processing circuitry which extracts an indication of a distance, from at least one signal detected by said transceiver unit, said signal being a reflection of a transmission of said transceiver unit driven by said time varying frequency signal. Optionally, the indication is a distance between walls of a bladder.



## WO 2005/034717 A3



(88) Date of publication of the international search report: 24 November 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.